

~~3. (Amended) The method of claim 1 [or 2], wherein the [said] porous membrane is contacted with the [said] cellulase.~~

4. (Amended) A method for producing beer comprising:
(a) filtering beer through a porous membrane until such time that said porous membrane is in need of cleaning,

(b) contacting the [said] porous membrane with a cellulase having a crystalline:soluble cellulase activity ratio at 60 minutes of at least about 0.1 to clean the [said] porous membrane, and

(c) then reusing the [said] porous membrane to continue filtering beer.

5. (Amended) The method of claim 4 [3 or 4], wherein the [said] porous membrane is contacted with the [said] cellulase and is not contacted with any other enzyme.

7. (Amended) The method of claim 4 [6], wherein the [said] cellulase has a crystalline:soluble cellulose activity ratio at 60 minutes of at least about 0.3.

8. (Amended) The method of claim 7, wherein the [said] cellulase has a crystalline:soluble cellulose activity ratio at 60 minutes of at least about 0.4.

9. (Amended) The method of claim 8, wherein the [said] cellulase has a crystalline:soluble cellulose activity ratio at 60 minutes of at least about 0.5.

10. (Amended) The method of claim 9, wherein the [said] cellulase has a crystalline:soluble cellulose activity ratio at 60 minutes of at least about 1.

11. (Amended) The method of claim 10, wherein the [said] cellulase has a crystalline:soluble cellulose activity ratio at 60 minutes of at least about 1.2.

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E1
12. (Amended) The method of claim 4 [any of claims 1-11], wherein the [said] cellulase is derived from *Trichoderma*.

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13. (Amended) The method of claim 12, wherein the [said] *Trichoderma* is *Trichoderma reesei* or *Trichoderma longibrachiatum*.

14. (Amended) The method of claim 4 [any of claims 1-11], wherein the [said] cellulase is derived from *Thermomonospora*.

15. (Amended) The method of claim 14, wherein the [said] *Thermomonospora* is *Thermomonospora fusca*.

16. (Amended) The method of claim 4 [any of claims 1-3 and 6-15], wherein the [said] porous membrane is contacted with an [said] amylase.

17. (Amended) The method of claim 16, wherein the [said] amylase is selected from the group consisting of α -amylase, β -amylase, and the combination thereof.

18. (Amended) The method of claim 4 [any of claims 1-17], wherein the method further comprises contacting the [said] porous membrane [is additionally contacted] with an aqueous base prior to reusing the [said] porous membrane [being reused].

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20. (Amended) The method of claim 18 [or 19], wherein the [said] aqueous base is an aqueous solution of NaOH and/or KOH.

21. (Amended) The method of claim 18 [any of claims 18-20], wherein the [said] base is present in a concentration of 0.1-1 N in the [said] aqueous base.

A3 Sub E1 22. (Amended) The method of claim 18 [any of claims 1-21], wherein the [said] porous membrane is contacted with the [said] aqueous base at a temperature of 40-90 °C.

24. (Amended) The method of claim 4 [any of claims 1-3 and 6-23], wherein the [said] porous membrane is contacted with α -amylase at a temperature of 60-75 °C and a pH of 4.6-5.8.

A4 25. (Amended) The method of claim 4 [any of claims 1-3 and 6-23], wherein the [said] porous membrane is contacted with β -amylase at a temperature of 40-60 °C and a pH of 4.6-5.8.

26. (Amended) The method of claim 4 [any of claims 1-25], wherein the [said] porous membrane is cleaned until the zeta potential of the [said] porous membrane ceases to change.

27. (Amended) The method of claim 4 [any of claims 1-26], wherein the [said] time that the [said] porous membrane is in need of cleaning is determined by the pressure drop across the [said] porous membrane.

28. (Amended) The method of claim 4 [any of claims 1-26], wherein the method further comprises determining the [said] time that the [said] porous membrane is in need of cleaning [is determined] by determining the streaming potential or zeta potential of the [said] porous membrane.

Sub E1 29. (Amended) A method for producing beer comprising:

(a) filtering beer through a porous membrane that progressively clogs during filtration,

(b) monitoring the streaming potential or zeta potential of the [said] porous membrane as a measure of the extent of clogging of the [said] porous membrane,

(c) halting filtration of the beer through the [said] porous membrane before the [said] porous membrane becomes fully clogged as determined by the streaming potential or zeta potential of the [said] porous membrane,

(d) cleaning the [said] porous membrane, and

(e) then reusing the [said] porous membrane to continue filtering beer.

30. (Amended) The method of claim 28 [or 29], wherein the [said] filtration is halted when the streaming potential or zeta potential of the [said] porous membrane is reduced to 20% of its original value for the unused porous membrane.

31. (Amended) The method of claim 4 [any of claims 1-30], wherein the [said] porous membrane is a polyamide porous membrane.

32. (Amended) The method of claim 31, wherein the [said] filtration is halted when the zeta potential of the [said] porous membrane exceeds -5 mV as measured at pH 4.2.

33. (Amended) The method of claim 4 [any of claims 1-32], wherein the [said] filtering of the beer is cold-filtering of the beer.

34. (Amended) A filtration unit for filtering beer comprising a feeder line for the filtration-bound beer, a porous membrane, a run-off line for the filtered beer, and means for monitoring the streaming potential and/or zeta potential of the [said] porous membrane through which beer flows.

35. (Amended) The filtration unit of claim 34, further comprising a bypass porous membrane through which beer flows, wherein the [said] monitoring means for monitoring the streaming potential and/or zeta potential does so with respect to the [said] bypass porous membrane.

In addition, please add the following new claims:

36. The method of claim 29, wherein performing step (d) of the method comprises contacting the porous membrane with a cellulase having a crystalline:soluble cellulase activity ratio at 60 minutes of at least about 0.1 to clean the porous membrane.

37. The method of claim 4, wherein the porous membrane is a nylon-6,6 membrane.

38. The method of claim 4, wherein the porous membrane has a pore rating of about 0.02-1 μm .

39. The method of claim 38, wherein the porous membrane has a pore rating of about 0.1-1 μm .

40. The method of claim 39 wherein the porous membrane has a pore rating of about 0.45 μm .